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TITLE

PHOTOELECTRIC CHEMICAL

ELEMENT

ABSTRACT: PURPOSE: To enable light energy to be effectively converted into electrochemical energy by light emission, by using a specific polymer of aniline-group compound as an electrode.

> CONSTITUTION: In an electrochemical element comprising an electrode of conductor coated with organic materials, electrolytic solution, and a paired electrode and having a change of system generated by emitting light on the electrodes, a main element of the organic material is a polymer of aniline-groups compound indicated in a formula 1. Electrodes suitable for photoelectric chemical reaction can be obtained by using a glass electrode coated with a transparent electroconductive material such as SnO₂ in particular, to electrochemically synthesize a polymer or so. In an electrode with anions being doped there the anions are released into electrolytic solution by light emission. therefore, photovoltaic conversion can be performed by using an electrode system, which has oxidation-and-reduction potential within the potential range of the electrode with anions being doped there, as a paired electrode. Thus, an electrochemical element accumulating these charges can be realized.

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